

Appl. No. 10/073,110
Reply to Office action of October 16, 2003

Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Withdrawn): A motor grader blade support arrangement comprising a grader blade with upper and lower slide rails attached to a rear surface of the blade, a support structure having a series of upper and lower bearings which engage said rails and accommodate longitudinal sliding movement of said blade and slide rails; each bearing being supported and retained by a bearing support holder attached to said support structure; at least some of said bearings including an adjustment mechanism to reduce tolerances between the bearings and the slide rails, said adjustment mechanism including at least one short stroke hydraulic cylinder supported in said respective bearing support holder and acting as an intermediary between said bearing holder and the bearing thereof, each hydraulic cylinder including a grease fitting and the position of said cylinder is adjusted using said grease fitting.

Claim 2 (Withdrawn): A motor grader blade support arrangement as claimed in claim 1 wherein said adjustment mechanism includes two hydraulic cylinders spaced in the length of the respective bearing.

Claim 3 (Withdrawn): A motor grader blade support arrangement as claimed in claim 2 wherein each bearing support holder having an adjustment mechanism includes an accessible port for each hydraulic cylinder and said grease fitting is located within said accessible port.

Claim 4 (Withdrawn): A motor grader blade support arrangement as claimed in claim 2 wherein said series of upper and lower bearing include at least two lower bearings each having said adjustment mechanism and at least two upper bearings each having said adjustment mechanism.

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Claim 5 (Withdrawn): A motor grader blade support arrangement as claimed in claim 3 wherein said series of bearings include at least two lower bearings each of which includes said adjustment mechanism and at least three upper bearings all of which have said adjustment mechanism.

Claim 6 (Withdrawn): A motor grader blade support arrangement as claimed in claim 5 wherein said hydraulic cylinders are filled with grease under pressure in excess of 3000 psi.

Claim 7 (Withdrawn): A motor grader blade support arrangement as claimed in claim 1 wherein each hydraulic cylinder is of a diameter in excess of 1.5 inches.

Claim 8 (Withdrawn): A motor grader blade support arrangement as claimed in claim 7 wherein the operating stroke of each hydraulic cylinder is less than 1 inch.

Claim 9 (Withdrawn): A motor grader blade support arrangement as claimed in claim 6 wherein each hydraulic cylinder is includes a stepped outer casing and said bearing holders include ports which partially receive said hydraulic cylinders with the steps thereof abutting said bearing holder.

Claim 10 (Withdrawn): A motor grader blade support arrangement as claimed in claim 9 wherein each bearing is recessed on a back surface thereof and cooperates with said bearing holders such that said hydraulic cylinders are captured between their respective bearing and the respective bearing holder.

Claim 11 (Currently amended): A bearing support arrangement for a slide rail of motor grader blade comprising a bearing holder, a removable bearing received in said holder and at least one adjustment mechanism for varying the position of said bearing in said holder, said adjustment mechanism being ~~received~~ located in said holder between a rear face of said bearing and said bearing holder and acting on a rear face of said bearing to space said rear face from said holder as a function of said adjustment mechanism, said adjustment mechanism including at least one short stroke hydraulic cylinder which is

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normally sealed with a fixed volume of fluid, said at least one hydraulic cylinder including a fitting for varying said fixed volume of fluid as required to compensate for bearing wear.

Claim 12 (Original): A bearing support arrangement as claimed in claim 11 wherein said bearing holder includes a 'U' shaped channel in which said removable bearing is received.

Claim 13 (Original): A bearing support arrangement as claimed in claim 11 wherein said adjustment mechanism includes two short stroke hydraulic cylinders spaced in a length of said bearing holder.

Claim 14 (Original): A bearing support arrangement as claimed in claim 13 wherein each hydraulic cylinder includes an exposed grease fitting through which grease is inserted to pressurize said cylinder and adjust said bearing.

Claim 15 (Original): A bearing support arrangement as claimed in claim 11 wherein said bearing on a rear surface thereof facing said bearing holder having a recessed area which partially receives said at least one hydraulic cylinder.

Claim 16 (Original): A bearing support arrangement as claimed in claim 15 wherein said bearing and said bearing holder cooperate to generally surround said adjustment mechanism while exposing a rear surface of said adjustment mechanism through a port in said bearing holder.